

AMENDMENTS TO THE CLAIMS

1. (Previously Presented) A dual mode wireless transceiver comprising:
- a direct sequence spread spectrum transmitter portion with a first data transmission rate;
 - a frequency hopping spread spectrum transmitter portion with a data transmission rate that is greater than said first data transmission rate;
 - a mode selection circuit coupled to said direct sequence spread spectrum transmission portion and to said frequency hopping spread spectrum transmission portion and configured to

detect when the transceiver is transmitting a voice transmission and in response thereto to selectively activate said direct sequence spread spectrum portion and to deactivate said frequency hopping spread spectrum transmission portion and

detect when the transceiver is transmitting a data transmission and in response thereto to selectively activate said frequency hopping spread spectrum transmission portion and to deactivate said direct sequence spread spectrum transmitter portion; and

a receiver portion capable of receiving and demodulating both direct sequence spread spectrum modulated signals and frequency hopping spread spectrum modulated signals.

2. (Original) The dual mode wireless transceiver of Claim 1, wherein said direct sequence spread spectrum transmitter portion comprises a spreading code generator selectively mixed with an input signal.

3. (Original) The dual mode wireless transceiver of Claim 2, further comprising a frequency generator and wherein said frequency hopping spread spectrum transmitter portion further includes a hopping sequence generator selectively coupled to said frequency generator.

4. (Original) The dual mode wireless transceiver of Claim 2, further comprising a spreading code mixer for mixing the output of said spreading code generator and the input signal.

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5. (Original) The dual mode wireless transceiver of Claim 4, further comprising a modulating mixer coupled to receive the output of said spreading code mixer and said frequency generator.

6. (Original) The dual mode wireless transceiver of Claim 1, wherein said receiver portion selectively receives a spreading code from said direct sequence spread spectrum transmitter portion.

7. (Original) The dual mode wireless transceiver of Claim 1, wherein said receiver portion selectively receives a demodulation frequency signal from said frequency hopping spread spectrum transmitter portion.

8. (Currently Amended) A dual mode wireless transceiver configured to transmit a transmission, comprising:

a frequency generator;

a spreading code mixer;

a spreading code generator capable of generating a spreading code and selectively coupled to said spreading code mixer;

a frequency hopping sequence generator capable of generating a hopping sequence and selectively coupled to said frequency generator;

a modulating mixer coupled to receive the spreading code of said spreading code mixer and an output of said frequency generator;

a spread spectrum control signal system including circuitry configured to recognize whether the transmission is voice or data and

when the transmission is voice, to disconnect said frequency hopping sequence from said frequency generator and to couple said spreading code to said spreading code mixer in a first transmission mode with a first transmission rate and

when the transmission is data, to disconnect said spreading code from said spreading code mixer and to couple said frequency hopping sequence to said frequency generator in a second transmission mode with a transmission rate greater ~~then~~ than said first transmission rate; and

a demodulation portion coupled to receive the output of said frequency generator.

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9. (Original) The dual mode wireless transceiver of claim 8, wherein said demodulation portion is coupled to selectively receive the spreading code of said spreading code generator.

10. (Canceled)

11. (Original) The dual mode wireless transceiver of claim 8, wherein said a spreading code mixer is a digital mixer.

12. (Original) The dual mode wireless transceiver of claim 8, wherein said frequency generator is a phase locked loop.

13. (Currently Amended) The dual mode wireless transceiver of claim 8¹², wherein the phase locked loop includes a voltage controlled oscillator, a lowpass filter and a frequency mixer/phase detector.

14. (Currently Amended) A cordless telephone dual mode wireless transceiver comprising:

a direct sequence spread spectrum transmitter means for modulating an input signal as a direct sequence spread spectrum signal;

a frequency hopping spread spectrum transmitter means for modulating the input signal as a frequency hopping spread spectrum signal; and

a mode selection means coupled to said direct sequence spread spectrum transmitter means and to said frequency hopping spread spectrum transmitter means ~~for detecting whether the input signal is voice or data and~~ configured to

detect when the input signal is voice, and in response thereto to selectively activate~~selecting~~ said direct sequence spread spectrum transmitter means, to deactivate said frequency hopping spread spectrum transmitter means, and to transmit said input signal as a direct sequence spread spectrum signal ~~with a first transmission rate, and~~

detect when the input signal is data, and in response thereto to selectively activate~~selecting~~ said frequency hopping spread spectrum transmitter means, to deactivate said direct sequence spread spectrum transmitter means, and to transmit said input signal as a frequency hopping spread spectrum signal ~~with a transmission rate greater than said first transmission rate; and~~

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~~a receiver capable of receiving and demodulating both direct sequence spread spectrum modulated signals and frequency hopping spread spectrum modulated signals.~~

15. (Currently Amended) The cordless telephone dual mode wireless transceiver of Claim 14, wherein said direct sequence spread spectrum transmitter means includes a spreading code generator.

16. (Currently Amended) The cordless telephone dual mode wireless transceiver of Claim 15, further including a frequency generator and wherein said frequency hopping spread spectrum transmitter means further includes a hopping sequence generator selectively coupled to said frequency generator.

17. (Currently Amended) The cordless telephone dual mode wireless transceiver of Claim 15, further including a spreading code mixer for mixing the output of said spreading code generator and the input signal.

18. (Currently Amended) The cordless telephone dual mode wireless transceiver of Claim 17, further including a modulating mixer coupled to receive the output of said spreading code mixer and said frequency generator.

19. (Canceled)

20. (New) A dual mode wireless transceiver comprising:

a direct sequence spread spectrum transmitter portion with a first data transmission rate;

a frequency hopping spread spectrum transmitter portion with a data transmission rate that is greater than said first data transmission rate; and

a mode selection circuit coupled to the direct sequence spread spectrum transmission portion and to the frequency hopping spread spectrum transmission portion, wherein the mode selection circuit is configured to

detect when the transceiver is transmitting a voice transmission and in response thereto to selectively activate the direct sequence spread spectrum portion and to deactivate the frequency hopping spread spectrum transmission portion, and

detect when the transceiver is transmitting a data transmission and in response thereto to selectively activate the frequency hopping spread

spectrum transmission portion and to deactivate the direct sequence spread spectrum transmitter portion.

21. (New) The dual mode wireless transceiver of Claim 20 wherein the direct sequence spread spectrum transmitter portion comprises a spreading code generator, wherein the spreading code generator generates a spreading code.

22. (New) The dual mode wireless transceiver of Claim 20 further comprising a frequency generator and wherein the frequency hopping spread spectrum transmitter portion further includes a hopping sequence generator selectively coupled to the frequency generator.

23. (New) The dual mode wireless transceiver of Claim 21 further comprising a spreading code mixer for mixing the spreading code and an input signal.

24. (New) The dual mode wireless transceiver of Claim 23, further comprising a modulating mixer coupled to receive an output of the spreading code mixer and the frequency generator.

25. (New) A method of transmitting a signal comprising:

detecting when an input signal is voice, and in response thereto selectively activating a direct sequence spread spectrum transmitter and selectively deactivating a frequency hopping spread spectrum transmitter, so as to process said input signal as a direct sequence spread spectrum signal, and

detecting when the input signal is data, and in response thereto selectively activating said frequency hopping spread spectrum transmitter, and selectively deactivating said direct sequence spread spectrum transmitter, so as to process said input signal as a frequency hopping spread spectrum signal.

26. (New) The method of Claim 25 wherein processing the input signal as a direct sequence spread spectrum signal comprises generating a spreading code, mixing the input signal with the spreading code to produce a spread signal, and modulating the spread signal with an output of a frequency generator.

27. (New) The method of Claim 25 wherein processing the input signal as a frequency hopping spread spectrum signal comprises applying a frequency hopping sequence to a frequency generator, and modulating the input signal with an output of the frequency generator.

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28. (New) A method of transmitting a signal comprising:
detecting when an input signal is voice, and in response thereto
selectively activating a direct sequence spread spectrum transmitter so as to
process said input signal as a direct sequence spread spectrum signal, and
detecting when the input signal is data, and in response thereto
selectively activating said frequency hopping spread spectrum transmitter so as
to transmit said input signal as a frequency hopping spread spectrum signal.

29. (New) The method of Claim 28 wherein activating the direct sequence
spread spectrum transmitter comprises:

activating a spreading code generator;
deactivating a hopping sequence generator; and
activating a despreader.

30. (New) The method of Claim 28 wherein activating the frequency hopping
spread spectrum transmitter comprises:

activating a hopping sequence generator;
deactivating a spreading code generator; and
deactivating a despreader.
